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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/127,316 07/31/98 CHING

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EXAMINER

IM22/0619

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HOUSTON TX 77040

NOLAN, S	
ART UNIT	PAPER NUMBER

1772

DATE MAILED:

8

06/19/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/127,316

Applicant(s)

CHING et al

Examiner

Sandra Nolan

Group Art Unit

1772

☒ Responsive to communication(s) filed on Nov. 16, 1999 and Mar. 29, 2000

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1, 2, 4-13, 15-31, 33-90, and 92-98 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1, 2, 4-13, 15-31, 33-90, and 92-98 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement submitted on November 16, 1999 (Paper No. 6) has been considered. A copy of the initialed form PTO 1449 is enclosed.

Objections Withdrawn

2. The objection to the specification, stated in paragraph 2 of the January 7, 2000 Office Action (Paper No. 5) is withdrawn in view of Applicants' amendments in their response of March 29, 2000 (Paper No. 7).

3. The objection to claims 1-29 set forth in paragraph 3 of Paper No. 5 is withdrawn in order to apply the new 35 USC 112 rejection stated hereinbelow.

Rejections Withdrawn

4. The 35 USC 112 rejection of claims 1-98 set out in paragraph 4 of Paper No. 5 is withdrawn in view of Applicant's arguments in Paper No. 7.

5. The 35 USC 102 rejection of claims 1, 2, 5-8, 12, -14, 16-19, 23-31, 34-37, 41-78, 85-90, and 92-95 as anticipated by Ching et al (US 5,859,145), as stated in paragraph 5 of Paper No. 5, is withdrawn in view of the amendments presented in Paper No. 7.

6. The 35 USC 103 rejection of 1, 2, 4-8, 12-14, 15-19, 23-31, 33-37, 41-78, 81-82, 85-90, and 92-95 as unpatentable over Ching et al, as discussed in paragraph 6 of Paper No. 5, is withdrawn in view of the amendments presented in Paper No. 7.

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7. The 35 USC 103 rejection of claims 3, 9, 10, 11, 14, 15, 20, 21, 22, 32, 38, 39, 40, 79, 80, 83, 84, 91, and 96-98 as unpatentable over Ching et al in view of Pampus et al (US 3,873,644), as set out in paragraph 7 of Paper No. 5, is withdrawn.

New Rejections

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 12, 13, 15-31 and 33-77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A “composition” (claims 12 and 30) and a “layer” (claim 61) cannot have a “polymeric backbone”. They may contain chemical entities that have such backbones, but they cannot have them because they are not chemical entities, i.e., compounds.

Please correct or clarify.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. Claims 1, 2, 4-13, 15-31, 33-90, and 92-98 are rejected under 35 USC 103(a) as unpatentable over Ching et al (US 5,859,145) in view of Pampus et al (US 3,873,644).

Ching et al is discussed in paragraph 5 of Paper No. 5. The patent also discloses, at col. 17, lines 27-33, oxygen scavenging compositions containing "a transition metal salt and a component having an ethylenic or polyethylenic backbone and having pendant moieties which contain a cyclic radical containing allylic hydrogen." Cyclic radicals containing $-\text{CH}_2-\text{CH}=\text{CH}-$ links are deemed to meet this limitation. However, Ching et al do not teach the specific cyclic olefins now claimed.

Pampus et al teaches the use of cyclic olefin groups (col. 2, lines 21-27) as graft moieties on vinylic polymers. They do not show features of the invention other than the cyclic olefin side chains. The graft copolymers are taught to be crosslinkable (col. 4, lines 47+). Cyclopentene is also recited in claim 5 of the patent.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the cyclic olefins of Pampus et al as graft monomers to attach to the backbone and/or intermediate polymers of Ching et al in order to produce crosslinkable copolymers having pendant allylic-hydrogen containing moieties for use in oxygen scavenging compositions (per col. 17, lines 26+ of Ching et al).

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

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harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1, 2, 4-13, 15-31, 33-90, and 92-98 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4-6 and 15 of U.S. Patent No. 5,859,145 (to Ching et al) in view of Pampus et al.

Ching et al claims processes for making oxygen scavenging polymers (claims 4-6) by mixing transition metal salts with polymers having pendant ester and/or acid moieties in amounts sufficient to promote oxygen scavenging in the polymers. They also claim (claim 15) the making of polymers having functional side chains by melt blending polymers with a hydroxy form of the functional additive under (trans)esterification conditions.

Pampus et al show the grafting of cyclopentene and other cyclic moieties (col. 2, line 25) having the structures of Applicants' olefinic pendant groups onto polymer backbones having ethylenic unsaturation therein. The graft copolymers are crosslinkable (col. 4, lines 47+).

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the cyclic groups of Pampus et al as graft moieties in the

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production of the oxygen scavenging polymers of Ching et al is one desired to make them crosslinkable as well as oxygen scavenging.

Response to Arguments

14. Applicant's arguments with respect to claims 1, 2, 4-13, 15-31, 33-90, and 92-98 have been considered but are moot in view of the new ground(s) of rejection herein.

Conclusion

Any inquiry concerning this communication should be directed to Sandra M. Nolan, whose telephone number is (703) 308-9545. The examiner can normally be reached on Monday through Thursday from 7:00 am to 4:00 pm. She can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ellis P. Robinson, can be reached on (703) 308-2364. The fax phone number for the art unit is (703) 305-5408. The telephone number for the receptionist is (703) 308-0661.



S. M. Nolan
Patent Examiner
Technology Center 1700

SMN/smn
June 16, 2000
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